

Bill Yeakey: *From Mercury to Space Station*

A tribute by John McKenna

JSC recently lost Bill Yeakey, a United Space Alliance flight software engineer in Flight Design. He was a significant contributor to the Space Shuttle Program having developed more than 70 orbiter displays, many of which still fly today. Bill was one of those rare engineers driven to perfect software changes for the Space Shuttle Program. He got started in project Mercury and kept going.

Bill was a chemical engineering graduate of the University of Louisville. He left his home of Louisville, Ky., in 1958, after marrying his high school sweetheart Marilyn. Marilyn's father managed a paint and varnish company in Louisville and tried to convince Bill into working at the store. Bill had his eyes on the stars and when he told his father-in-law of his intentions to go to the Cape, his father-in-law replied, "I don't think you should be doing that Buck Rogers stuff."

The Yeakeys headed to St. Louis and Bill took a job with McDonnell Douglas. In 1960, he went to the Cape to work the Mercury Program Environmental Control System (ECS).

At a time when Americans were watching "I Dream of Jeannie" on new color TVs, Bill had become the ECS lead engineer, responsible for the checkout, servicing and operation of the Gemini ECS. Bill's career then led him to the thermodynamics team at the missile facility in Titusville, and later supporting Skylab at the

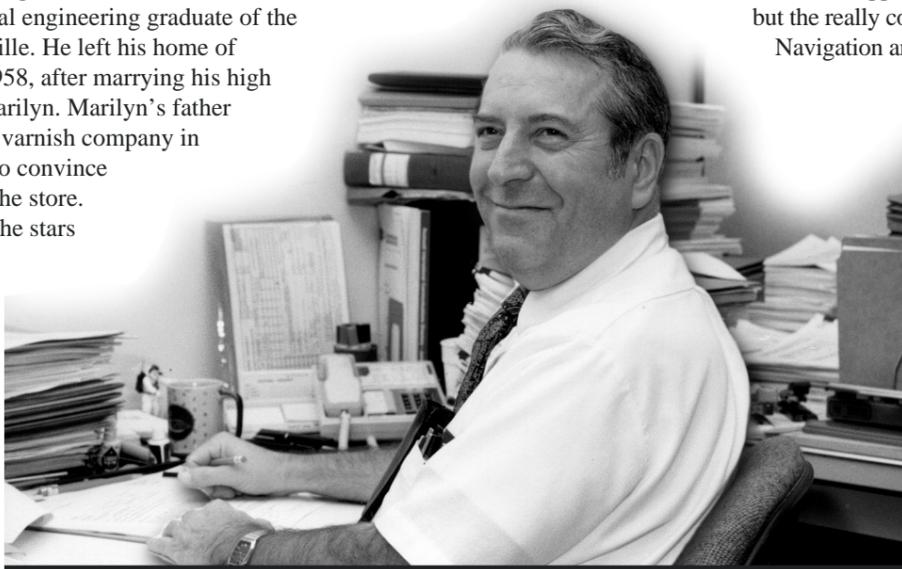
Cape and at Marshall Space Flight Center until budgets for Apollo tightened. He was out of work for a short time until he found a job at JSC with McDonnell Douglas in 1974 to aid with development of the Orbiter software and cockpit displays.

While Bob Crippen and John Young were preparing for the maiden flight of *Columbia*, enterprise drop tests validated the approach and landing software, but the really complex Orbital Guidance, Navigation and Control software still

needed to be developed. Computers were leading the way with huge consoles that each stored 20 megabytes! Acronyms kept memory size down.

Bill was a great 'bit flipper' using the tricks of the trade with the limits of the flight software. Astronauts that followed all came to know Bill Yeakey as the software expert. He knew the primary as well as backup software like the back of his hand. Hard work was his ethic and software was his life.

After nearly 100 shuttle flights and 29 Mercury, Gemini, Apollo and Skylab flights, Bill passed away on his 67th birthday, having worked two years past retirement. He leaves a tremendous void behind but will be always an inspiration for us younger bucks that wanted to go out after work, yet he got us to stay late and learn his ethic of "working hard." ■



During the STS-106 mission, the Mission Control Center flag was flown at half-staff for JSC software engineer Bill Yeakey.

'Hubble Space Telescope: New Views of the Universe' opens at Space Center Houston

At one time or another, virtually everyone has looked to the night sky and wondered where the stars came from, or questioned our universe and how long it has existed. With the launch of the Hubble Space Telescope ten years ago, our scientific knowledge of the universe has greatly expanded. Now, for the first time, a new exhibit – "Hubble Space Telescope: New Views of the Universe" – brings Hubble and its extraordinary discoveries to the public.

Sponsored by NEC Foundation of America and Rockwell Fund, Inc., "New Views of the Universe" opened Saturday, October 7, at Space Center Houston. The extraordinary exhibit is on a nationwide tour from the Smithsonian Institution Traveling Exhibition Services (SITE).

Visitors will explore the cosmos through the eye of the Hubble Space Telescope. "Through activities, video, artifacts and vivid Hubble images, they will learn about the telescope's history, design and purpose, as well as gain a greater understanding of planets, stars, galaxies and intergalactic space," said Space Center Houston President and CEO Richard E. Allen Jr.

Other exhibit areas explore Hubble's contributions to our understanding of the origins and evolutions of planets, stars,



galaxies and the universe. Visitors will discover the formation of our solar system and the kinds of planetary activities – such as a comet's impact on Jupiter or cyclones on Mars – Hubble can document.

Another section explores different types of galaxies, and investigates collisions and black holes. Guests will be able to watch galaxies collide and learn how

finding the distance to a specific galaxy can help scientists estimate the size and age of the universe.

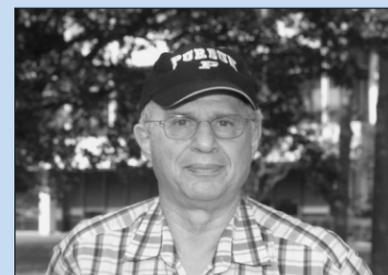
The exhibition ends with a look at the current and future activities of Hubble. The proposed Next Generation Space Telescope is revealed, and guests will be able to tap into a database of current events and visitor questions about Hubble.

The exhibit was organized by SITE and the Space Telescope Science Institute, operated for NASA by the Association of Universities for Research in Astronomy, Inc. The exhibit and its educational programs have been made possible through NASA's Offices of Space Science and Education and Lockheed Martin.

"New Views of the Universe" will be open until January 2, 2001. Admission to the exhibit is included with the cost of admission to Space Center Houston. Ticket prices are \$13.95 for adults, \$9.95 for children 4 to 11 years of age. Children under 4 are admitted free. The price for senior citizens age 65 and over is \$12.95. JSC employees – show your civil servant badge for free admission. Contractors may obtain discount tickets at the admission windows. The Center is open 10 a.m. to 5 p.m. on weekdays and 10 a.m. to 7 p.m. on weekends. ■

Faces in the crowd

If you had an opportunity to be a part of the first crew to the International Space Station, would you do it? Why?



NASA JSC Photo 2000e26639

Albert Ruder
Washington Group, Quality Engineer

Definitely! Why not? You only live once!! You'd have to get used to weightlessness but it would be exciting.



NASA JSC Photo 2000e26640

Daryl Ethington
Lockheed Martin
Documentation and Control Section Manager

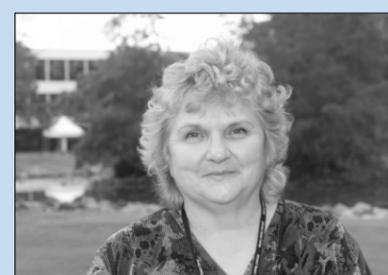
I was always fascinated by space, that's why I am here. I'd take that [opportunity] in a minute! One of the neatest things about it would be that it would put a good perspective on life with regards to the universe and seeing the size of it.



NASA JSC Photo 2000e26641

Ron Lockett
United Space Alliance
ISS Flight Controller

Yes! Definitely! Because it would be a challenge. It's something that is unique and I would be one of the only people in the world who could do it. Just being the first crew of an international space station of that caliber and of that size would be an amazing experience.



NASA JSC Photo 2000e26642

Carol Hidingier
Futron
Technical Editor/Graphic Designer

Absolutely, I would do it. It would be the ultimate new experience. I make it a point to do something new every year. Last year it was snorkeling. Just being in space and looking out to see the universe would be incredible – just the wonder of it.

JSC Photos by Robert Markowitz

Native American Month Observance set

Dancers from the American Indian Resource Center will perform from 11 a.m. to 1 p.m. on November 8 in the Bldg. 3 cafeteria as part of JSC's Native American Month Observance.

The dancers represent many facets of the American Indian community, from Creeks to Huastecas, from Apaches to Cherokees. The presentation is designed to demonstrate the beauty and dignity of American Indian culture, as well as to inform the audience about contemporary Native American life.

The American Indian Resource Center exists to educate the Native American and non-native communities about contemporary American Indian issues. Through lectures, cultural presentations, ceremonies, and direct action, the organization works to establish better communications between individuals and groups. Its goal is to improve the self-esteem and educational achievement of Indian youth as they interact with the larger non-Indian world. ■